CHAPTER 2 TRANSPORTATION PLANNING CHALLENGES AND TRENDS

This chapter describes factors that pose significant transportation challenges in the SCAG Region.

The Shape and Pattern of Future Growth

■ The Centrifugal Force of Growth in the Region

The population in the SCAG Region is more than 17 million in 2003 and represents 6 percent of the national population. About 1 in 17 persons in the United States lives in the six-county SCAG Region. The nation's second-largest metropolitan area, the Region grew by 1.9 million persons, or 13 percent, during the 1990s. The ring of counties around Los Angeles posted hefty population growth rates during the last decade. Riverside grew 32 percent to 1.6 million, San Bernardino 20.5 percent to 1.7 million, and Orange 18.1 percent to 2.8 million. All outstripped growth rates in Los Angeles County—up 7.4 percent to 9.5 million. Even a modest growth rate in Los Angeles County accounted for slightly over one-third of the Region's population growth over the last decade.

The California Department of Finance estimated that the population in the SCAG Region increased at a compounded annual rate of 2.1 percent between April 2000 and January 2002, slightly higher than the rate for the State as a whole. In 2002, while gaining about 330,000 people, the Region lost 22,000 jobs and had a slight decline in per capita income. The unemployment rate in the Region (6.1 percent) was higher than the national average (5.8 percent) but lower than the State average (6.7 percent).

Over the next 25 years, the regional Baseline (No-Project) projections of growth foresee another 6 million people added to this large and diversifying area. Children of existing residents fuel this population growth and are mostly of Hispanic and Asian ethnicity. Immigrants are attracted here because of jobs and the hope for a better life. Nearly one in three persons living in the Region is foreign born. At the same time, a huge "Baby Boom" population group will retire and set the stage for an unprecedented transfer of wealth, market-buying power, and demand preferences. As racial minorities and immigrants move to the suburbs, and as older majority households retire, more diverse lifestyle needs may emerge, and this may shift historical development patterns.

The Los Angeles Basin, north Orange County and coastal areas of the Region are job-rich and densely populated where a large segment of the middle class households is priced out of the housing market. As a result, many are forced to seek affordable homes in the outlying areas. This trend, if left unabated, would lead to urbanization of outlying deserts and mountain

areas, aggravating transportation congestion, and at the same time, affecting the Region's air quality and ecological balance. Steady development over the years has pushed average density levels in this widespread Region above those found in any other metropolitan area in the nation. This is challenging assumptions about how to accommodate expected future growth, where it will occur and whether it can be reoriented to achieve a higher quality of life.

Demographics

Although Whites make up a two-thirds majority in the nation as a whole, there is no racial or ethnic majority in California or in the Region. In 2000, Hispanics comprised 41 percent of the Region's population, followed by Whites at 39 percent, Asians at 14 percent and Blacks at 7 percent.

Population growth resulted from large net increases in three population groups: aging "Baby Boomers," their young children—the echo-boomers—and immigrants, mostly from Mexico, Central America and Southeast Asia. The national increase through births accounted for most of the population gain in the Region, as births over deaths accounted for two-thirds of population gain.

Housing and Households

At the same time, nearly 400,000 housing units were added between 1990 and 2000. This brought the housing stock in the Region up to 5.7 million units, but it was not enough. Only one unit was built for every five persons added to the Region. Population growth exceeded household growth and the average persons per unit rose from 2.94 in 1990 to 3.07 in 2000. This was in sharp contrast to a decade-to-decade drop in household size experienced by the nation overall.

Nevertheless, housing construction gains were in line with the net job increase in the Region. Southern California added a half million jobs over the last decade. Consequently, 1.3 jobs were added for every housing unit. The job-to-housing unit ratio was also 1.04 jobs for every housing unit in the year 2000. Population growth outpaced household, housing, and job growth.

The decline of median household income and the larger household size of the immigrant population, combined with the undersupply of new housing units, shaped the housing performance outcome of the last decade. When comparing homeownership in the nine largest metropolitan regions in the nation, the Region's homeownership rate of 55 percent in 2000 ranked eighth, above only the New York region. Among the largest metropolitan regions, Southern California had the highest percentage of owner and renter households with housing costs greater than 30 percent of the household income. Contrary to the decreasing trend at the national level, the percentage of housing considered crowded increased in every county in the Region from 1990 to 2000. Almost 20 percent of the households in the Region lived in crowded housing in 2000, compared to only 6 percent for the nation.

Per capita income and average payroll levels per job have declined in Southern California as measured against other major metropolitan areas in the country during the last decade. The

Region lost ground to other major metro areas in terms of both relative economic performance and competitiveness as measured by per capita, median and poverty income levels. For instance, median income dropped over the decade, falling from $47,760 in 1990 (after adjusting for year 2000 dollars) to $45,903, or a drop of 4 percent. Poverty levels have increased steadily over the past 30 years in the Region, rising from about 10 percent in 1970 to nearly 16 percent in 2000. During the last decade, median home values in California and the most populous areas of the Region have risen due to construction activity lagging population growth, low inventory and historically low interest rates. Median home values in California now exceed the $350,000 mark, which is more than double the national median.

Among the nine largest metropolitan areas, the SCAG Region also has the lowest average payroll per job. When comparing per capita income among the 17 largest metropolitan regions in the nation, the Region dropped from the fourth highest in 1970, to 7th in 1990 and 16th in 2002. Median household income declined during the last decade, contrary to the improving trends in the State and the nation.

Based on the 2000 Census, close to one in six persons of all ages and one in five children under 18 in Southern California are in poverty. During the 1990s, poverty rates for both measures increased significantly in the Region while decreasing at the national level. Among the nine largest metropolitan regions in the nation, the SCAG Region had the highest poverty rate among persons of all ages, and among children under 18. Unlike Southern California, many of the largest metropolitan regions reduced poverty rates during the 1990s, particularly for children under 18.

The SCAG Region At-A-Glance

- 38,000 square miles connected by 9,000 lane miles of freeway
- More than 17 million people living in 6 counties and 188 cities – 2002
- More than 5.7 million housing units
- No ethnic majority
- More than 7 million jobs
- Ninth largest economy in the world
- LAX , fifth largest airport in the world
- Los Angeles and Long Beach Ports — largest maritime port system in the U.S.
- Regional Median Home Price— $328,000 in August 2003
- 2003 Median Family Income of nearly $50,300/yr (HUD)

Mobility and Air Quality

Since 1990, the Region has consistently ranked as the most congested metropolitan region in the nation. However, there were some positive signs. During the 1990s, the growth rate of vehicle miles traveled (VMT) dropped sharply from the 1980s. Transit use increased by 20 percent, higher than the population growth of 13 percent during the 1990s. However, prior to this gain, transit usage declined by more than 10 percent during the latter part of the 1980s. The overall pattern of mode of transportation to work choice remained essentially unchanged. In 2000, Southern California had the highest carpooling share to work among the nine largest metropolitan regions in the nation.

During the 1990s, the Region achieved consistent improvements in the number of days exceeding federal or State standards for ozone and carbon monoxide. The Region exceeded the federal one-hour standard for ozone during 40 days in 2000 compared to 130 days in 1990. However, in 2002, the number of days exceeding the federal one-hour standard for ozone increased to 49 days from 36 days in 2001. The number of days for health advisory also increased from 15 to 18 days between 2001 and 2002. Available data for 2003 indicated that it would be even worse than in 2002.

The Regional Baseline (No Project) Growth Projection for 2030

Baseline (No-Project) growth represents a trend projection that assumes continuation of existing land-use policies, and completion of regional transportation projects that are already committed for funding. This projection excludes consideration of growth proposed in this RTP, and projects that are proposed in the Plan over and beyond the committed projects, including Maglev and other corridor improvement projects. By 2030, the Region will have 22.9 million persons by adding 6.3 million persons and will reach 10.2 million jobs by adding 2.7 million jobs. This level of population growth is expected to yield 2.1 million additional households in the Region at an average of 3 persons per household.

In contrast to the 2001 RTP, baseline growth forecast, employment and household growth are expected to drop while population growth is increased. These adjustments are based on recent trends and the local input and review process.

The components of population growth are net migration (people who move here versus those who move away) and natural increase (births minus deaths). Net migration is comprised of both domestic and international migration. The Region is expected to experience a net loss in domestic migration, but this will be more than offset by international immigration. As the Region grows, it will become older and less diverse. Hispanics will assume the role of the majority ethnic group, with a representation of 51 percent of the Region's population. The aging population and lower birth rates, especially among Hispanic women, will moderate the number of persons per household.

The population in the Region will become older because of aging "baby boomers." The population aged 65 and older will grow four-and-a-half times faster than the working age groups (15–64) between 2000 and 2030. The older age group percentage of the total population will nearly double, rising from 10 percent in 2000 to 17 percent in 2030. The median age will rise from 32.3 years in 2000 to 36.1 in 2030.

The number of persons per household will remain high in 2030 as upward pressures from increasing Asian and Hispanic populations with relatively large households (especially recent immigrants) overwhelm the downward pressures exerted by aging "baby boomers" and lower birth rates.

The demographic changes will affect the size and makeup of the labor force. Due to the retirement of "baby boomers," the Region may experience severe shortages of skilled labor.

If this is not made up by domestic migration, then more foreign immigration will be needed. A large portion of new residents will be recent immigrants or children of recent immigrants. The skills of the new labor force will probably not match the requirements of the new jobs. Long-term strategies should be considered, including appropriate and enhanced educational opportunities and a phased retirement system.

Shifting demographic patterns will also influence travel behavior. Recent immigrants tend to use transit much more than other population groups. Urban density levels may also increase since foreign-born residents urbanize less land. Many SCAG Region foreign-born, Hispanic, and Asian residents have modest incomes, larger household sizes, and tend to double up in existing areas, thereby increasing population density. The socioeconomic characteristics and lifestyle choices associated with immigration are consistent with a more compact urban form.

Jobs will be created across all employment sectors. The largest gains will be in low-wage, low-skill service sector jobs as the shift in the Region from manufacturing jobs to service sector jobs continues. Between 2000 and 2030, service sector jobs will lead in total growth and comprise the largest share of total jobs. The makeup of service sector jobs will also change, with employment opportunities ranging from the fast food sector to investment banking.

Workforce housing affordability and availability issues have affected quality of life in the Region. Not enough housing has been built to accommodate population growth. There is also an imbalance in the location of jobs and houses. The insufficient housing in job-rich urban areas supported existing trends in urban sprawl, longer commute patterns, congested freeways and worsening air quality. Homeownership rates in the Region are lower than in the rest of the country and lower in coastal areas than in the inland valley and desert areas.

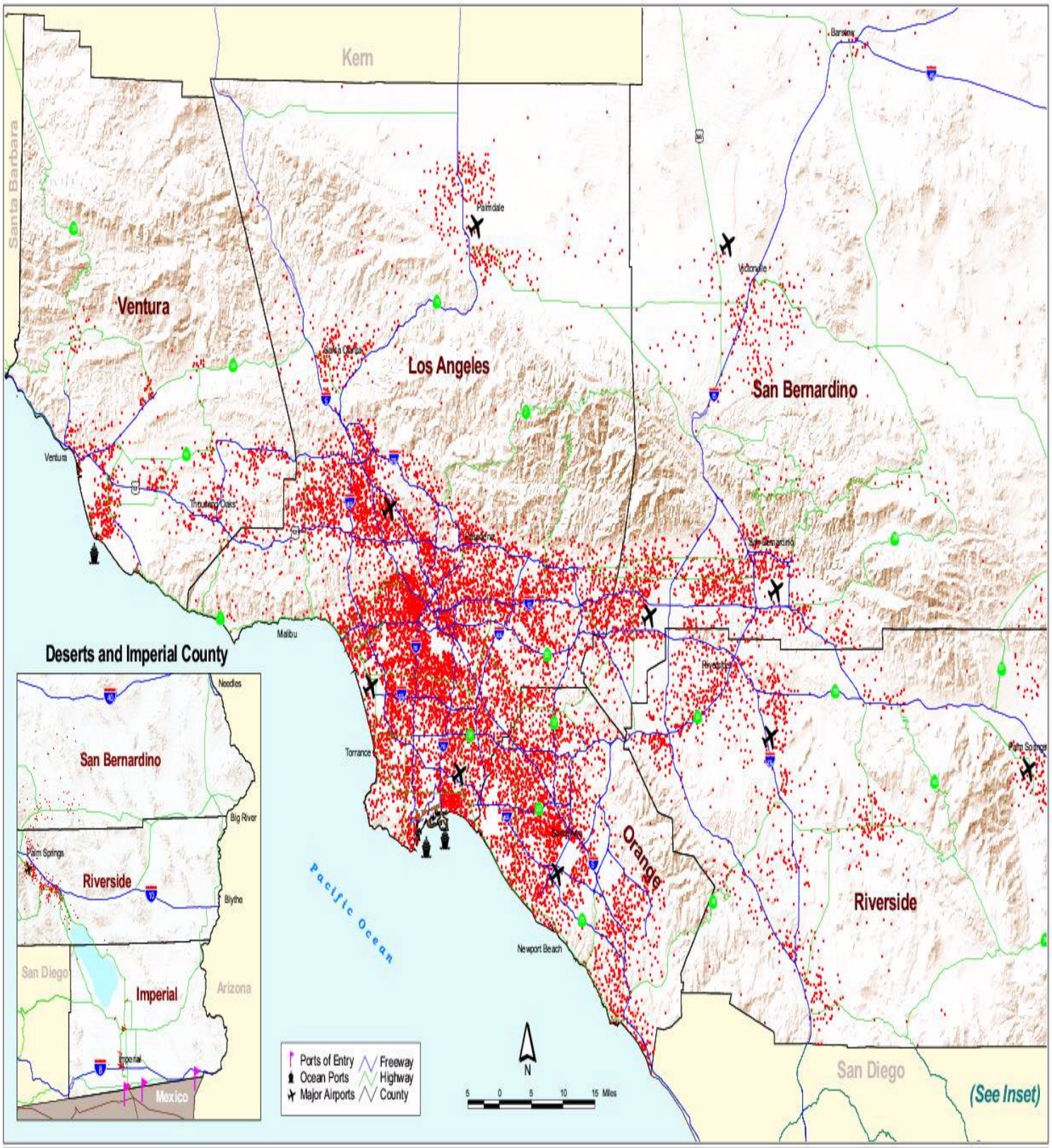
During the 1970s and 1980s, many achieved the dream of suburban homeownership. However, there were also some negative consequences of suburban development. In particular, racial and social disparities and environmental problems became more visible. Chief among these were air quality problems and worsening congestion.

Table 2.1 summarizes Baseline (No-Project) growth versus the Plan Forecast for the Draft 2004 RTP for each subregion in terms of population, households, and employment. For a description of the Plan Forecast, please refer to Chapter 4.

Table 2. 1

2030 Population, Households and Employment
(in thousands)

Subregion	No Project Forecast			Plan Forecast		
	Pop	HH	Emp	Pop	HH	Emp
Imperial Association of Goverments	270	84	110	270	84	111
North LA County	1,205	368	263	1,179	362	286
City of Los Angeles	4,425	1,649	2,213	4,413	1,663	2,265
Arroyo Verdugo Cities	399	149	264	398	151	271
San Gabriel Valley COG	2,434	731	941	2,431	738	951
Westside Cities COG	245	121	290	249	125	295
South Bay Cities COG	1,000	341	525	1,011	349	525
Gateway Cities COG	2,392	674	996	2,415	686	1,009
Las Virgenes-Malibu-Congejo COG	128	46	58	126	46	58
Orange County COG	3,553	1,098	1,922	3,553	1,098	1,922
Western Riverside County COG	2,413	795	805	2,413	860	919
Coachella Valley COG	730	253	248	730	268	270
SANBAG	2,713	842	1,071	2,713	898	1,179
Ventura County COG	984	325	454	990	332	465
SCAG Region	**22,891**	**7,476**	**10,158**	**22,891**	**7,660**	**10,527**



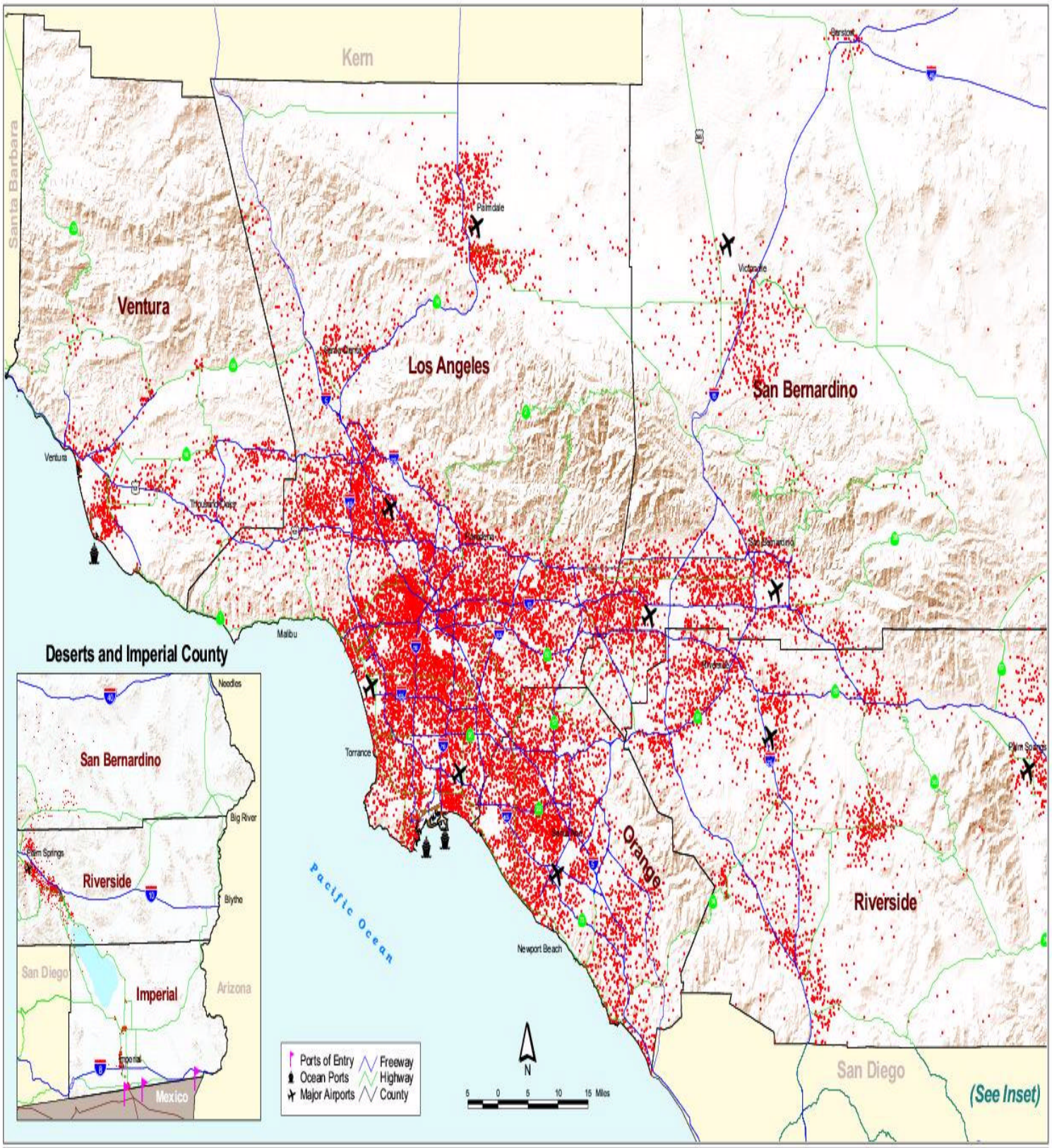
1 dot = 1,000 people

2000 Population

Exhibit 2.1

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

2004 RTP



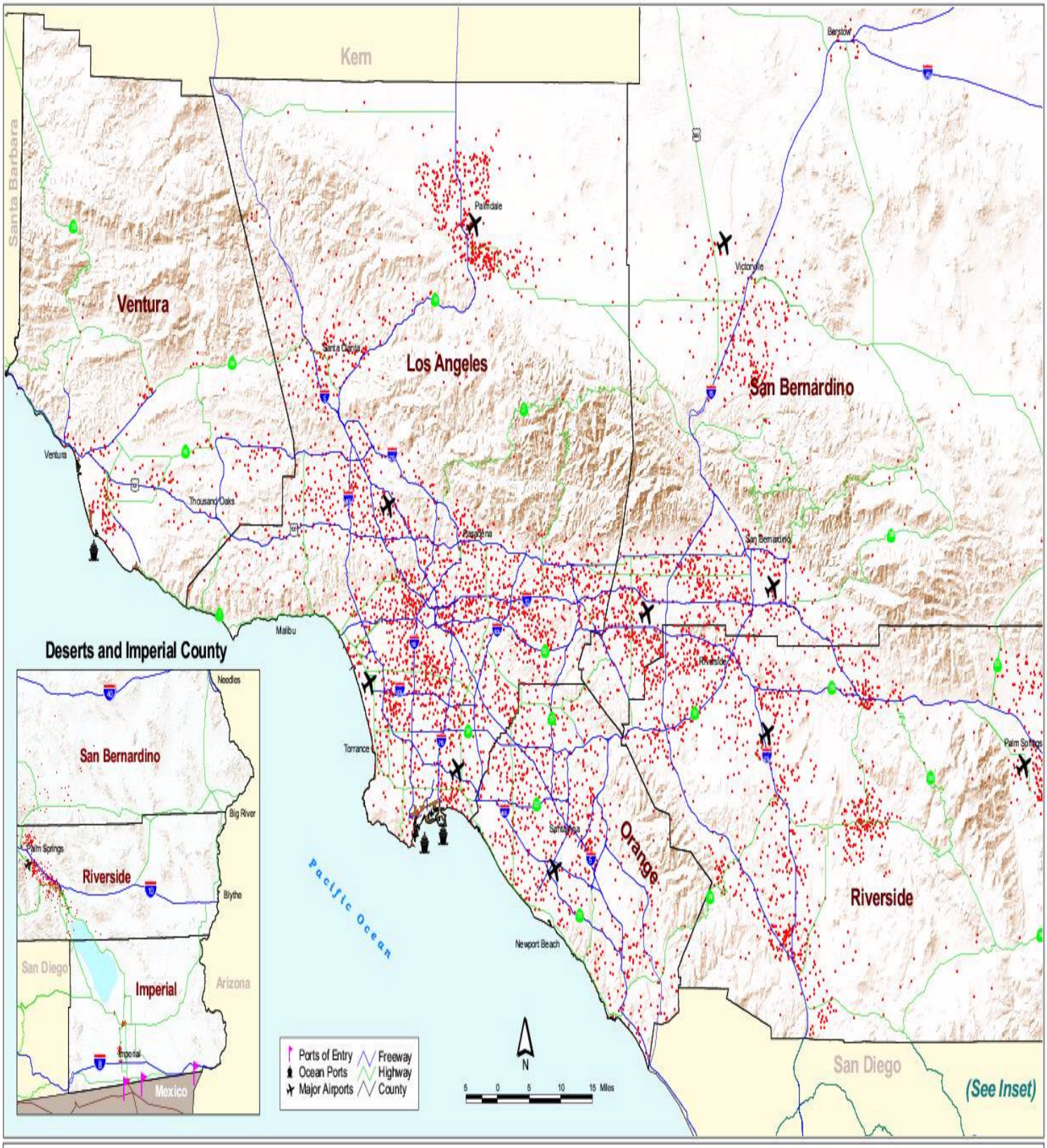
1 dot = 1,000 people

2030 Population

Exhibit 2.2

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

2004 RTP



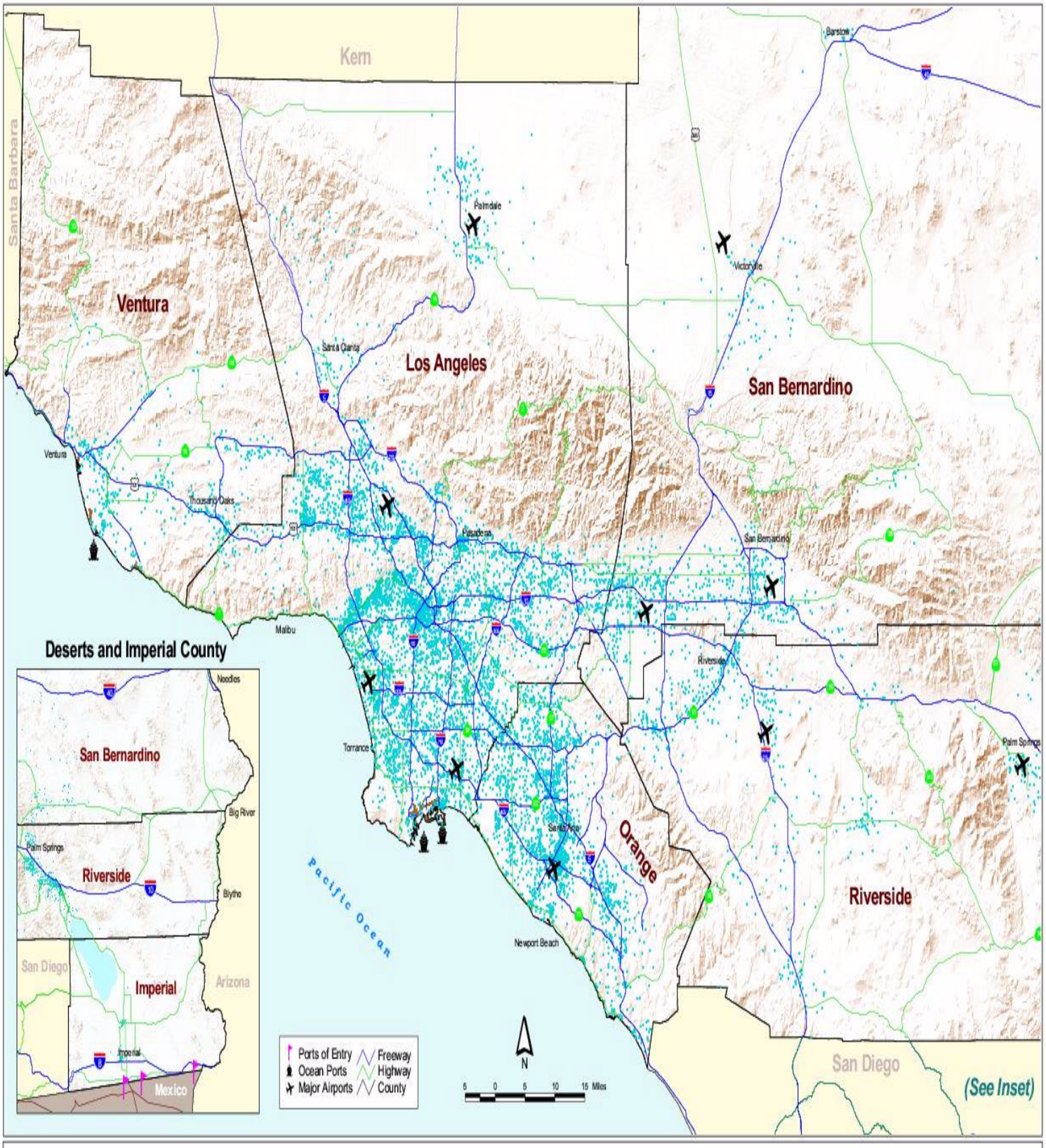
1 dot = 1,000 people

Population Increase 2000 to 2030

Exhibit 2.3

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

2004 RTP



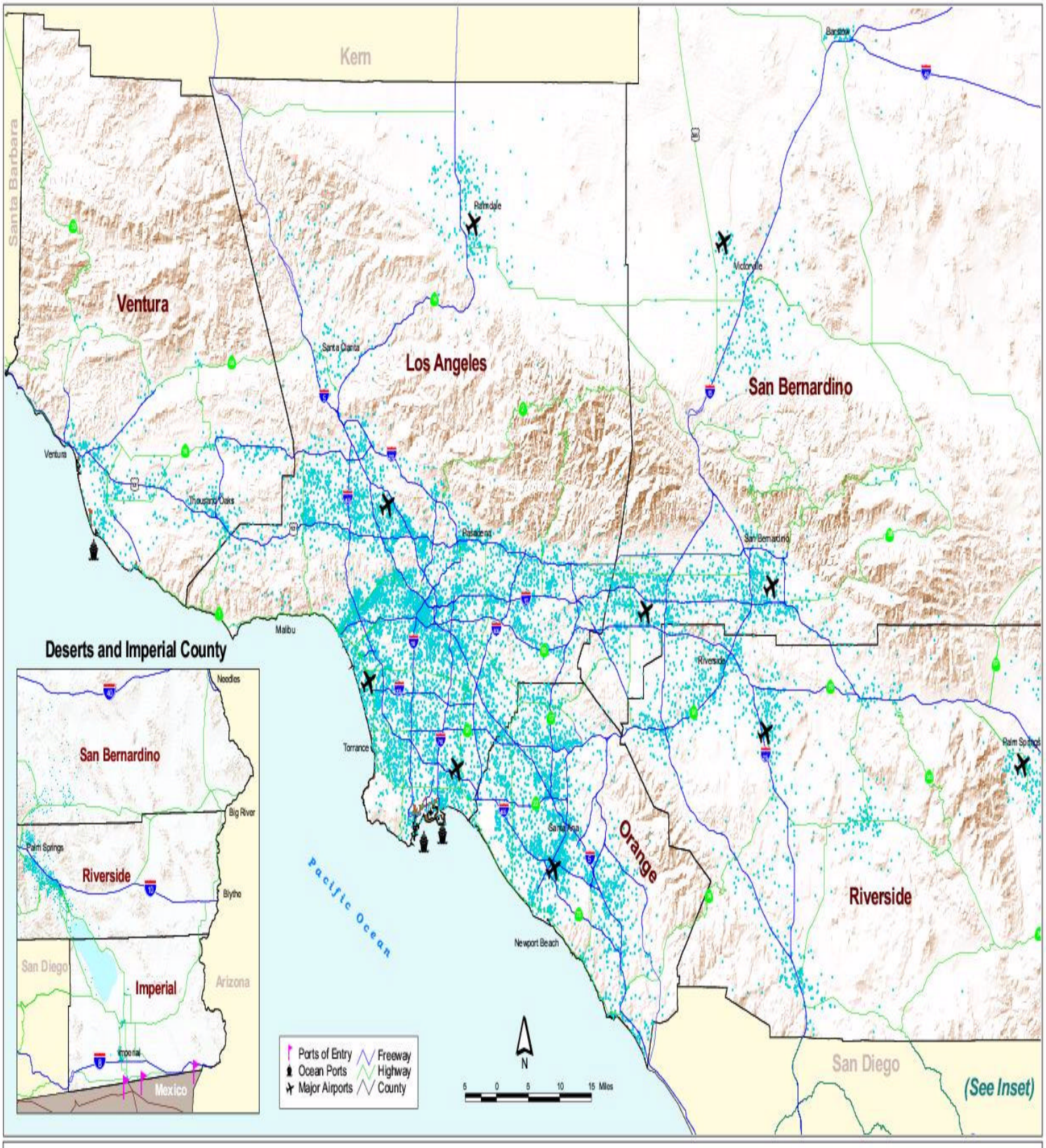
1 dot = 750 jobs

2000 Employment

Exhibit 2.4

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

2004 RTP



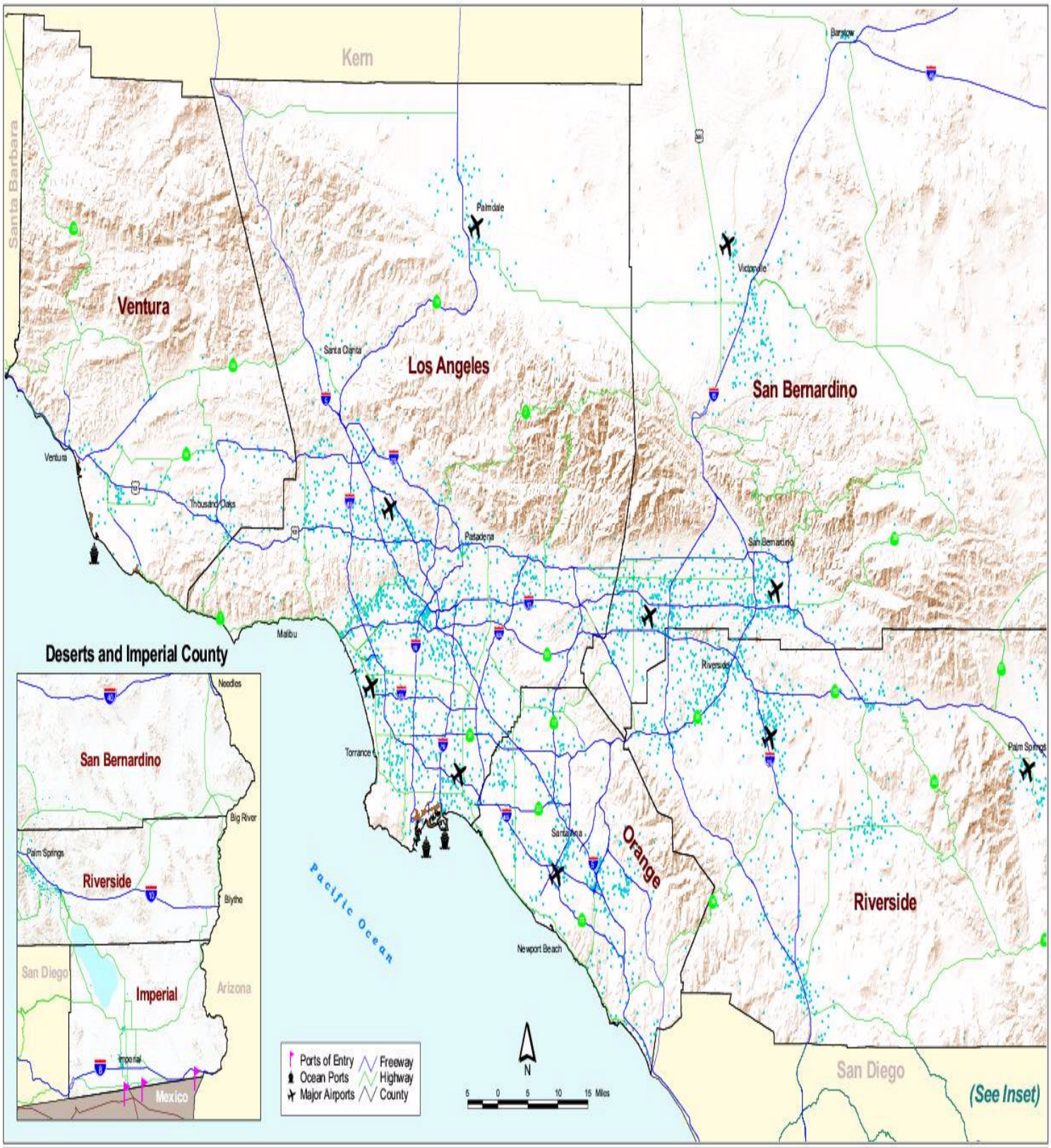
1 dot = 750 jobs

2030 Employment

Exhibit 2.5

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

2004 RTP



1 dot = 750 jobs

Employment Increase 2000 to 2030

Exhibit 2.6

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

2004 RTP

Meeting Our TDM Goals

The 2001 RTP envisioned coupling transit and non-motorized travel with ridesharing (carpooling and vanpooling) and encouraging people to work at home (e-commuting, telecommuting, teleworking, and building home-based businesses) to stem the tide of solo driving and the overall growth in vehicle miles of travel (VMT).

The 2002 *State of the Region* report indicates that the Region's performance is mixed. VMT almost doubled between 1980 and 2000. Total transit boardings increased 7 percent over 1999 (up continuously since 1995), while annual bus miles decreased by one million in Los Angeles County. The average journey to work travel time increased in every SCAG county with a regional average increase from 26 to 29 minutes. Finally, the transportation to work mode of choice in the Region remained essentially unchanged during the 1990s with 72 percent of workers driving to work alone.

Within the Region, Los Angeles County has the lowest rate of workers who drive alone to work, while Orange and Ventura Counties have the highest rates. San Bernardino, Riverside and Imperial Counties showed noticeable improvements in reducing the Single Occupancy Vehicle (SOV) commute. In fact, the three inland counties had a higher rate of workers who carpooled to work than the three coastal counties.

Biking and walking primarily constitute non-motorized transportation. Bikeways and pedestrian paths can play a significant role in meeting the transportation needs of our Region at the local level. Particularly, non-motorized transportation plays a bigger role in the densely populated mixed land-use area and corridors.

Non-motorized transportation, by its very nature, would be more effective at a local level in communities that are densely populated and have a good mix of land-uses, including commercial, residential and institutional. Non-motorized transportation mainly serves as a recreational mode at the regional level. Unless substantial investments in non-motorized transportation are coordinated with other modes and facilities, it would be very difficult to gain a significant increase in mode share of the work trips for non-motorized transportation in 2030.

The Region's bikeways encourage non-motorized commutes, serve as recreational facilities and provide inexpensive, environmentally friendly transportation opportunities. More than 2,000 miles of Class I and II bikeways exist just between Los Angeles and Orange Counties. In addition, the Region is served by an extensive network of mountain bike trails, which are also designated for hiking and horseback riding. A Class I bikeway has a right-of-way completely separated from any street or highway for bicycle travel. A Class II bikeway has a striped lane for one-way bicycle travel on a street or highway.

According to the 1990 Census, biking and walking accounted for approximately 0.7 and 3.0 percent of total work trips, respectively. SCAG's *State of the Commute* report indicates that biking and walking have hovered around 0.5 and 1.5 percent, respectively, in the 1990s.

Bicycling and walking are important elements of an integrated, intermodal transportation system. Constructing sidewalks; installing bicycle parking at transit centers; teaching children to ride and walk safely; installing curb cuts and ramps for wheelchairs; constructing exclusive bike lanes and striping bike lanes; and building trails contribute to national and regional transportation goals of safety, mobility, economic growth and trade and enhancement of communities and the natural environment. The following strategies are recommended to improve bicycle and pedestrian movement.

- Collect and monitor bicyclist- and pedestrian-related accident data
- Utilize GIS and mapping tools to prioritize high-accident locations
- Develop appropriate streetscape and arterial boulevard improvements
- Promote effective public parking plans
- Adopt bicyclist-/pedestrian-friendly local zoning, land-use and development permit conditions
- Fund and build infrastructure improvements to provide improved bicyclist/pedestrian accessibility, mobility and personal safety and security

It appears that progress is being made in the rideshare area. Among the nine largest metropolitan regions in the nation, the SCAG Region had the highest share of workers who carpooled to work in 2000. However, the rate of growth for teleworkers has slowed during the 1990s. Also, more has to be learned about how the current economic downturn affects home-based business viability and the resulting impact of additional commute trips.

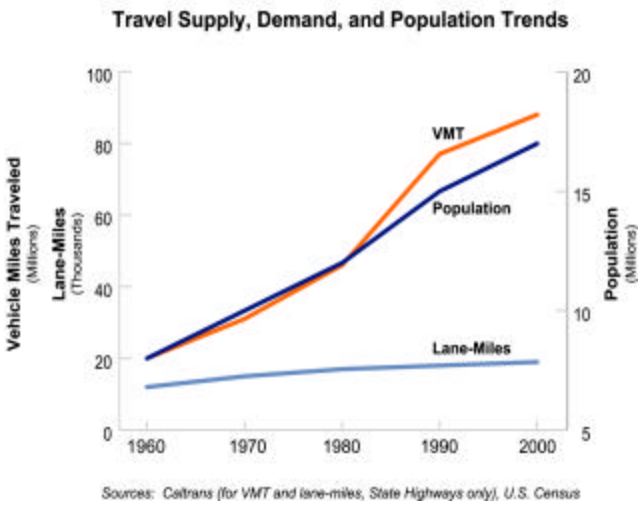
Unprecedented Demand on Our System

The growth described in the following section is likely to place unprecedented demand on our system, which is already overburdened by the current level of demand. This section describes the challenges that our transportation system will face in accommodating that future growth.

■ Highways and Arterials

Both industry and residents are served by a vast transportation network that includes over 9,000 lane miles of freeway, more than 42,000 lane miles of arterials, several large public transit systems, four major airports (including the world's fifth largest), as well as the largest maritime ports system in the United States. Yet the Region's

Figure 2.1

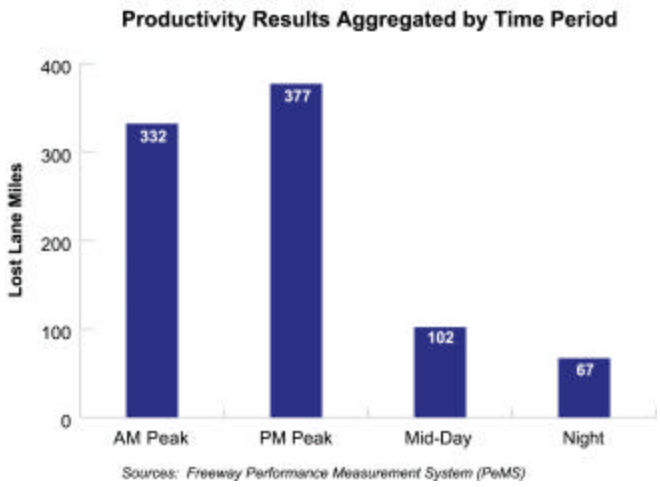


transportation system has not kept pace with population and transportation demand. Figure 2.1 illustrates this point. While population more than doubled from year 1960 to year 2000, our State highway miles increased by less than 30 percent.

Consequently, our Region's congestion has increased dramatically, affecting both person travel and goods movement. The vast majority of trips (99 percent) rely on the highway and arterial network regardless of whether they are made using automobiles, buses, vanpools, trucks or bikes. The regional and local highway system faces mounting congestion that affects personal mobility, freight movement and air quality. The preservation, management and selective expansion of this system are crucial to maintaining the Region's economic vitality and quality of life.

For year 2000, total daily delay from congestion was estimated to be 2.2 million person-hours. If current trends persist, this delay is expected to more than double to 5.4 million person-hours. Reasons for delay and congestion vary and include merging, weaving, accidents, weather, special events, and lane closures, among others. However, these reasons are all intricately linked to overall highway productivity. The roadway system loses its productivity when it is unable to serve the number of vehicles that it is designed to serve. This occurs at major interchanges (or accident locations) that are often referred to as bottlenecks. The resulting productivity loss of the system occurs only during peak demand periods. So in effect, when demand is highest, system capacity actually decreases. Figure 2.2 presents the results of an analysis based on real traffic counts around the Region's freeway system to estimate the lost productivity in the SCAG Region for the morning and afternoon peak demand periods as well as mid-day and night periods. The "Lost Lane Miles" shows the equivalent lost capacity due to the lost productivity the system experiences. The PM Peak productivity loss of almost 380 lane miles represents an investment of almost $8 billion if the Region were to replace them with expansion projects. Fortunately, there are less expensive strategies to recapture this lost productivity in an efficient manner. These are discussed in Chapter 4.

Figure 2.2

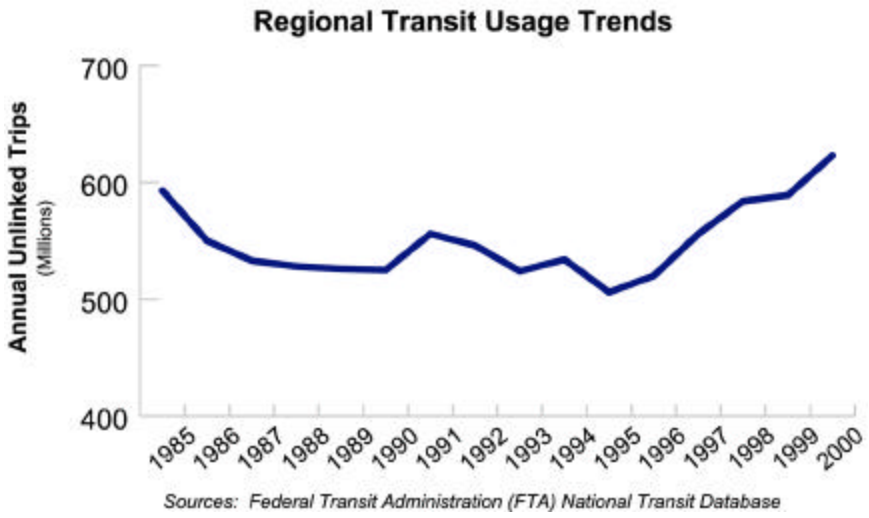


Public Transportation

Starting in the early 1980s, the Region, and Los Angeles County in particular, embarked on an aggressive path of transit system development. Many of these projects (e.g., Metro Blue Line, Red Line, and Metrolink) have been completed and now provide meaningful choices to the residents of this Region.

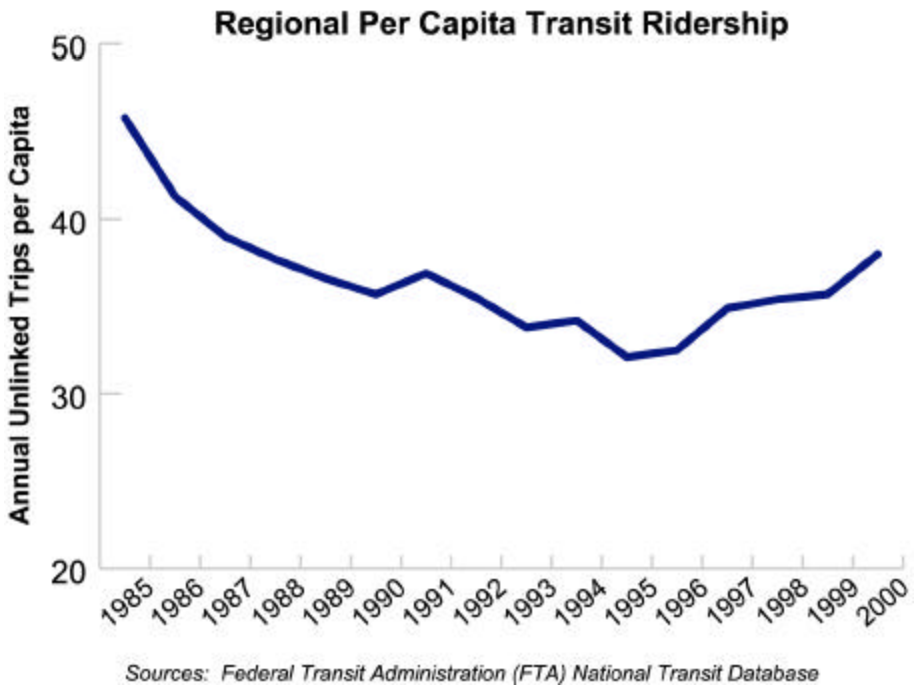
Yet even these critical projects did not reduce demand on our arterial and freeway systems. Figure 2.3 demonstrates this point. It shows the trend of transit usage in the Region from year 1985 to year 2000. Note that transit ridership has been increasing significantly since 1995, in large part due to the completion of the aforementioned transit systems. Yet the total transit ridership in the Region is only slightly above the ridership in 1985. Transit ridership increases since 1995, once normalized with overall population growth, are somewhat less impressive. Figure 2.4 shows transit trips per capita over the same period. Note that the overall increase in transit trips per capita per year is less than the total transit trips in the previous figure. In fact, on a per capita basis, the Region's transit ridership is still lower than 1985 levels.

Figure 2.3



Sources: Federal Transit Administration (FTA) National Transit Database

Figure 2.4



Sources: Federal Transit Administration (FTA) National Transit Database

Recent strategies are showing promise. This is especially true for Bus Rapid Transit projects in Los Angeles County. During July 2000, because of new Bus Rapid Transit routes, Metro Bus ridership reached its highest point in more than six years, averaging over 1.25 million boarding patrons, compared to 1 million carried a year earlier.

Similar to highways and arterials, the productivity of transit services is not optimal. Table 2.2 shows the average utilization of the different transit services in the Region. As the table shows, transit utilization as measured by available seat miles is generally less than 50 percent (except for light rail in Los Angeles). It is clear that transit around the world never approaches 100 percent utilization. In fact, the table would look different if only peak utilization were presented. However, such data are not available. Table 2.2 demonstrates the potential for improvements through strategies that increase ridership for current and/or restructured transit services.

Table 2.2

Transit Service Utilization in the SCAG Region

(Percent utilization of available seat miles)

County	Commuter Rail	Demand Response	Heavy Rail	Light Rail	Bus
Los Angeles	34%	11%	35%	59%	34%
Orange		13%	N/A		27%
Riverside		9%			26%
San Bernardino		12%			33%
Ventura		16%			22%

Sources: Federal Transit Administration (FTA) National Transit Database

Another challenge facing transit service in the SCAG Region is the need to coordinate more than 40 transit agencies. Many residents use more than one service and the coordination among these services is critical. Coordination includes schedule and fare payment methods. Moreover, residents that want to use transit to travel between counties find few choices, with Metrolink commuter rail being the most well-known service. Promising initiatives such as the "GOVENTURA Smartcard" and the Universal Fare Card in Los Angeles allow transit users to use the same payment method regardless of which transit service they use.

The cost of transit is also placing a large burden on the Region's finances. Subsidizing transit is common across the nation and around the world. There are no significant transit operators that are self-sufficient and do not require some level of subsidy. However, the SCAG Region's subsidy levels can be reduced, especially given the fiscal environment facing the Region. Table 2.3 summarizes the subsidy levels for transit in the Region, which ranged between 22 percent and 47 percent in year 2000 for the five counties that provide significant transit services. To pay for these subsidies, every person in the Region pays between $12 and $77 annually now. Strategies to reduce transit subsidies include increasing ridership, increasing revenues, or a combination of both. The Region, to the extent possible, must be mindful not to reduce overall transit ridership in an effort to improve subsidy levels.

Table 2.3

2000 Transit Subsidy in the SCAG Region

County	Population 2000	Total Person Trips 2000 (Transit & Non-Transit)	Public Subsidy	Total Funding	Farebox Recovery	Annual Public Subsidy per Capita
Los Angeles	9,576,497	31,588,516	$736,551,358	$1,099,911,627	33%	$76.91
Orange	2,864,196	10,499,600	$66,530,050	$124,940,750	42%	$23.23
Riverside	1,525,325	4,896,121	$30,651,986	$38,892,369	21%	$20.10
San Bernardino	1,696,904	5,475,741	$27,783,603	$39,845,344	30%	$16.37
Ventura	758,096	2,721,417	$9,289,979	$11,900,218	22%	$12.25

Sources: Federal Transit Administration (FTA) National Transit Database

Goods Movement

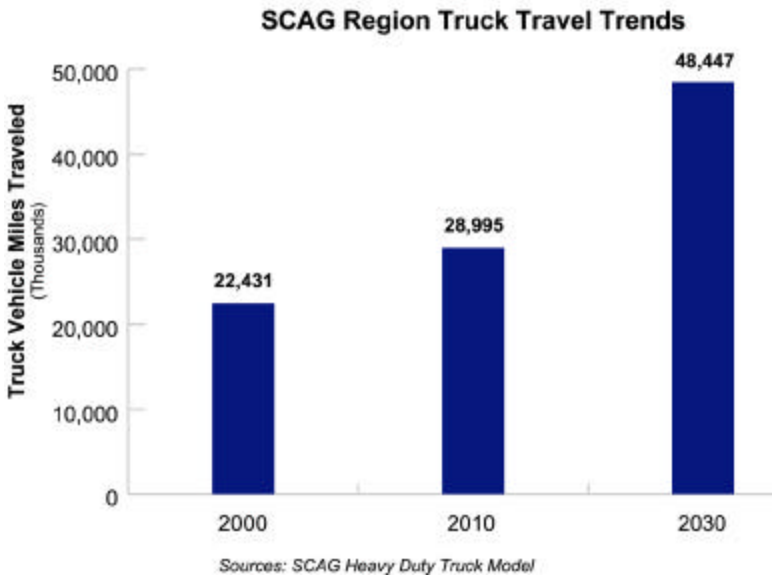
The Southern California Region is facing a crisis in goods movement transportation, characterized by dramatic growth in rail and truck traffic, limited transportation funding, and high infrastructure improvement costs. Forecasts of greater regional population and employment, and projections of increasing international and domestic trade volumes, all lead to worsening congestion and the potential of gridlock on the Region's surface transportation system.

Truck Travel

Almost all of the short-haul and a significant share of medium- and long-haul movement of goods occurs by truck. Most trucks share our roadway network with other vehicular traffic. SCAG's Heavy Duty Truck Model (HDT) estimates that this network carried 795,000 average daily trips in 2002. This equates with 25,500,000 of vehicle miles traveled (VMT). Projected regional truck VMT is shown in Figure 2.5. Examples of freeways with heavy truck volume include the I-710, SR-60 and I-15:

- At SR-60 east of Azusa Avenue in Los Angeles County, average daily truck volume exceeded 31,000 trips, which is almost 14 percent of total daily traffic.
- At SR-60 east of Euclid in San Bernardino County, truck volume totaled 36,000 trips, almost 18 percent of total traffic.
- Through Cajon Pass, I-15 north of SR-138 carries over 14,200 trucks per day (13 percent of total traffic), with the majority being 5-axle trucks (indicative of large-load, long-haul trucking).
- Along I-15 just south of the I-10 interchange, average daily truck volume totaled over 25,000 trips, which is almost 17 percent of total daily traffic.

Figure 2. 5



Freight Railway System

The freight railway system is critical to the SCAG Region. Rail transportation services for goods movement are provided in the SCAG Region along five principal rail alignments. These alignments are owned by the two Class 1 railroads operating in the Region: the Union Pacific Railroad (UP) and the Burlington Northern Santa Fe (BNSF). The majority of freight rail operations moves along the mainlines of each railroad—the San Bernardino Subdivision between Barstow and downtown Los Angeles for BNSF, and the Los Angeles Subdivision and Alhambra Subdivision for UP. The BNSF San Bernardino Subdivision includes 46.4 miles of double track; 16.6 miles have triple tracks; and 1.5 miles are covered by four main tracks. The UP Los Angeles subdivision includes 12.4 miles of single track with sidings (additional track that allows a train to move to one side so other trains may pass), 42.3 miles of double track (3.1 miles shared with BNSF), and 4.2 miles of triple track (on a portion of route shared with BNSF). The UP Alhambra line has 38.6 miles of single track with siding, and 21.9 miles of double track (*Los Angeles-Inland Empire Railroad Mainline Advanced Planning Study*, October 2002).

To facilitate freight railway services, improve safety, and reduce travel time for person movement, the Region invested in an ambitious large-scale grade separation project over the past decade. The Alameda Corridor, which opened in April 2002, provides grade separation along an existing at-grade railway that connects the Ports of Long Beach and Los Angeles to rail yards in downtown Los Angeles. The corridor provides grade separations at 200 street-rail intersections, reducing vehicle-train delay an estimated 90 percent. Other benefits include a 90 percent reduction in noise and vibration, a 28 percent reduction in railroad emissions, and a 54 percent reduction in emissions from automobiles and trucks idling at railroad crossings. Cargo transport has been expedited as train speed has doubled and travel time to downtown Los Angeles reduced.

Table 2.4 shows that the east-west freight and passenger rail demand between Los Angeles and the Inland Empire is projected to more than double. This calls for additional railway improvements to accommodate this future demand.

Table 2.4

East-West Rail Demand Forecast
(Average Daily Trains)

County	*2000*	*2010*	*2030*
Freight	112	165	283
BNSF	57	80	136
UP	55	85	147
Passenger	58	100	158
BNSF	46	75	113
UP	12	25	45
Total – All Trains	170	265	441

Sources: SCAG, LA – Inland Empire Railroad Mainline Advanced Planning Study, 2002

Maritime Ports and Waterways

International trade through the Los Angeles Customs District is expected to nearly triple on an annual basis from $230 billion to $661 billion between the years 2000 and 2020. The deepwater ports of Los Angeles and Long Beach constitute a significant portion of the trade activities in this district, and, together with the third regional port of Hueneme, handle 80 percent of California's and 35 percent of the nation's waterborne international trade. These ports are planning to invest $6 billion over the next 25 years on an ambitious infrastructure development program that will include widening arterial streets, upgrading freeway ramps, separating railroad grades from roadways, expanding rail yards, and adding intelligent transportation systems (ITS) to improve ground access management.

The competitive position of the Region's ports is very strong. As of 2002, these ports accounted for about 62 percent of total West Coast container traffic, rising from 51 percent nine years earlier. The San Pedro Bay (SPB) Ports possess between one-third and one-half of the West Coast container terminal capacity. These ports are served by almost half of the rail intermodal terminal capacity devoted to handling international container traffic to and from West Coast ports.

Approximately 44 percent of the total 1996 Asia-to-U.S. container cargo routed through West Coast ports terminated in California or Nevada, yet only about 17 percent was expected to do so based on these states' share of total continental U.S. population (and based on the assumed East Coast share of Asian trade). That is, traffic to/from California and Nevada was two-and-one-half times the amount expected based on population. A smaller value assumed

for the East Coast ports' share would drive the value of this multiplier even higher. It is simply not plausible that all of this cargo was consumed or produced in these two states.

One explanation for this seeming anomaly is that much of the import traffic "terminating" in California actually underwent "value-added" transformation ranging from insertion of hangers in garments to use as assembly components in larger manufactured goods. These transformed goods, along with cargo that is loaded into trucks or domestic containers for re-shipment to other regions after processing in a distribution center, are subsequently shipped elsewhere in the U.S. as domestic freight and contribute to this traffic shift. Such re-shipments put pressure on the Region's transportation system. The Region is, therefore, subsidizing other states by enduring incremental congestion and pavement deterioration from truck movements that are "passing through" at ever-increasing rates.

Airports

Airports play an important role in goods movement, as air cargo is transported either in passenger aircraft belly-holds or in dedicated freight aircraft used primarily for high-value, time sensitive shipments. In 2002, 2.6 million tons of air cargo were handled by the Region's airports.

Air Cargo Terminals

Regional air cargo has grown at an average annual rate of 6.6 percent since 1965. Los Angeles International (LAX) and Ontario International (ONT) are the major cargo-handling airports, transporting about 96 percent of all regional air cargo, with LAX alone accounting for 75 percent of the traffic. ONT air cargo traffic has increased by seven times since 1979, while LAX has doubled in the same period. Bob Hope, John Wayne, Long Beach and Palm Springs handle substantially less cargo. The air cargo trend since 1975 is shown in Table 2.5.

Table 2.5
Historical Air Cargo Tonnage
(x 000)

	1975	1980	1985	1990	1995	2000	2002
Bob Hope	0	0	7	20	36	37	43
John Wayne	0	0	0	0	16	18	15
Long Beach	0	1	4	19	27	52	59
Los Angeles	715	882	929	1,284	1,761	2,249	1,959
Ontario	3	5	176	246	387	511	547
Palm Springs	0	0	0	0.4	0.2	0.1	0.1
Total	**718**	**888**	**1,116**	**1,570**	**2,227**	**2,867**	**2,623**

Sources: Compiled by SCAG from individual airports

LAX is the primary cargo airport. Cargo facilities operated by airlines and cargo shippers occupy two million square feet of building space on about 200 acres of land. The total land area of LAX (including parking) is 3,500 acres. A significant number of off-airport freight-forwarding facilities are also located in proximity to the airport. The majority of air cargo passes through LAX primarily because shippers are able to rely on commercial passenger air carriers for spot or contracted cargo transport. Approximately 38 percent of LAX air cargo is carried in the bellies of passenger aircraft, part of a gradual decline as more cargo is moved to dedicated air freighters, which now account for 62 percent of LAX air freight.

More than 70 percent of all air cargo in the Region is now shipped on dedicated freighter aircraft, as compared to 59 percent in 1994. The continuing shift of cargo from the belly-holds of passenger planes to dedicated all-cargo freighters has enhanced the ability of these airports to serve cargo.

However, because of the large number of cities served by passenger airlines out of LAX, cargo shippers are able to offer worldwide service without having to operate dedicated freighters.

ONT handled 21 percent of regional air cargo in 2002. Owned by the City of Los Angeles and operated by Los Angeles World Airports (LAWA), ONT occupies 1,463 acres and is well situated within the regional ground transportation system. United Parcel Service (UPS) operates an express package service hub out of ONT. Ninety-eight percent of air cargo is handled through dedicated air freighters.

The air cargo industry was significantly impacted by the September 2001 terrorist attacks. The Transportation Security Administration (TSA) mandated that U.S. mail over 16 ounces could no longer be carried in the belly compartments of passenger aircraft. This restriction, as well as a recent tightening of the “known shipper” requirement, has limited the amount of air cargo carried on passenger aircraft.

Another key issue is surface congestion. With the majority of regional air cargo served by only two airports, the ability of the already crowded surface transportation infrastructure to accommodate the air cargo demand is limited. To complicate matters, the San Diego Region sends two-thirds of its air cargo to SCAG regional airports for shipping. Orange County, which generates 30 percent of regional air cargo, serves less than three percent of this amount.

The impact on ground transportation of freight movement to and from the airports is significant. The focus of new commercial airports such as March, Southern California Logistics and San Bernardino International on initially serving freight helps to relieve the pressure on LAX and ONT and serves the goal of decentralizing regional air services.

Aviation

The SCAG Region has 57 public use airports, including six commercial service airports, 45 general aviation, two recently closed military air bases (one certified as a commercial service airport, the other focusing on cargo), two commuter airports and two joint-use facilities.

In all, some 78 million annual passengers (MAP) were served in the Region in 2002, almost double the number served in 1980, as shown in Figure 2.6. The level of air passenger demand is forecast to double again before 2030.

The Region's aviation operational activity, including general aviation and military, makes Southern California the busiest of all regions in the country. There are eight airport governing bodies responsible for planning their individual airports in the proposed ten-airport system. These airports are:

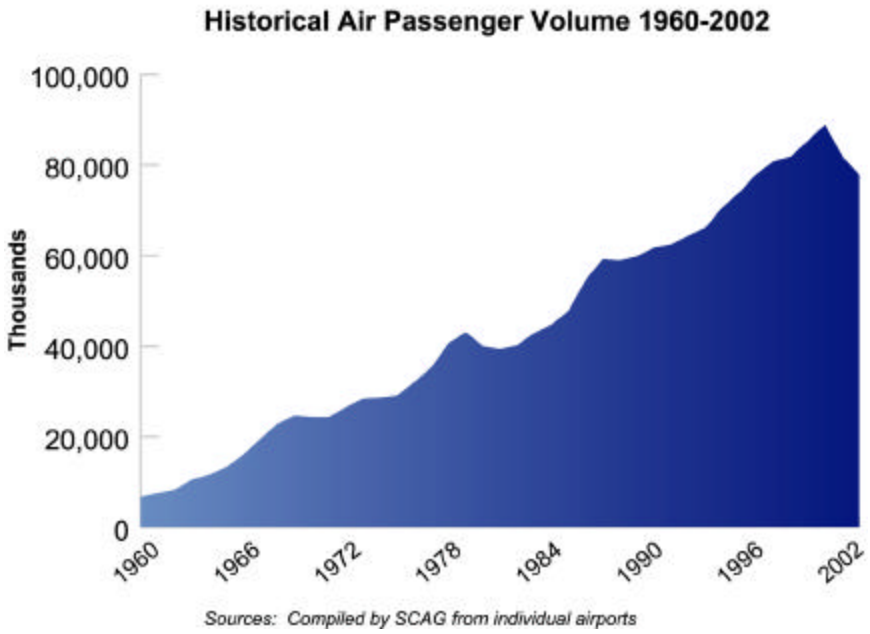
- Bob Hope (BUR)
- John Wayne (SNA)
- Los Angeles International (LAX)*
- Long Beach (LGB)
- March Inland Port (MAR)
- Ontario International (ONT)*
- Palm Springs (PSP)
- Palmdale Regional (PMD)*
- San Bernardino International (SBD)
- Southern California Logistics (SCL)

* *Operated by Los Angeles World Airports*

Currently, six commercial service airports handle the majority of passenger air traffic: Bob Hope, John Wayne/Orange County, Long Beach, Los Angeles International, Ontario International and Palm Springs. Limited commercial service exists at Oxnard and Imperial County airports. Passengers are currently concentrated at the urban airports with LAX serving almost 72 percent of the regional total. This air service concentration at LAX creates severe airport ground access problems. With worsening highway congestion in the future, LAX will become increasingly difficult to access for international passengers and air cargo.

Both the recent recession and the impacts of September 11, 2001, are still being felt in the aviation industry. The terrorist acts fundamentally changed the way airports think about security and safety, while the recession changed the way business travelers purchased air travel. After this time, the number of regional air travelers dropped dramatically. Starting in 2002, airports in the Region started to show signs of recovery. Smaller regional airports like Bob Hope, Ontario and John Wayne are almost at, or have exceeded, pre–September 11 passenger numbers. LAX has not completely recovered. International travel suffered the most from September 11 and, more recently, from the outbreak of the SARS disease in Asia. These events have slowed passenger activity at LAX.

Figure 2 6



The urban airports will reach their physical or legal capacity within the forecast period. The airports are all encroached by neighboring land-uses and have little room to expand without generating significant environmental impacts and community opposition. While the urban airports are all constrained, the suburban airports all have capacity, which is available to serve projected regional growth in demand.

The economic costs of doing nothing are substantial. For every one million regional air passengers, it is estimated that there is a positive regional economic impact of $620 million (in 1998 dollars) and 4,475 jobs. SCAG estimates that under a fully constrained aviation system, only 141 million passengers would be served in 2030.

Transportation Finance Challenges

Baseline Revenue versus Committed Expenses

Baseline Revenues

The development of the financial plan for the 2004 RTP has been under the direction of the SCAG Highway and Transportation Finance Task Force, composed of local elected officials and local agency staff. After reviewing the economic and growth assumptions governing the various transportation revenue sources, the Task Force approved several existing revenue sources, comprising local, State and federal funds for roadways and transit, as the baseline forecast for the 2004 RTP. The baseline forecast extends existing transportation funding sources to the year 2030 and does not include assumptions about future increases in tax rates nor does it include extensions of tax measures beyond their expiration date unless approved through recent ballot initiatives.

As Table 2.6 summarizes, an evaluation of these existing sources for the six-county SCAG Region yielded a baseline revenue estimate of $120 billion over the 29-year (2002 through 2030) time horizon of the 2004 RTP. The forecast is presented by revenue source for the full RTP period in constant 2002 dollars.

This baseline estimate reflects SCAG's "low" revenue scenario in light of the current economic environment coupled with the continuing decline in transportation funds. The financial forecast was devised in the format of a revenue range (low, medium, and high) to serve as a basis for further modifications. The Transportation and Communications Committee, as well as the Highway and Transportation Finance Task Force, approved the "low" revenue scenario to use for analytical and planning purposes in the 2004 RTP.

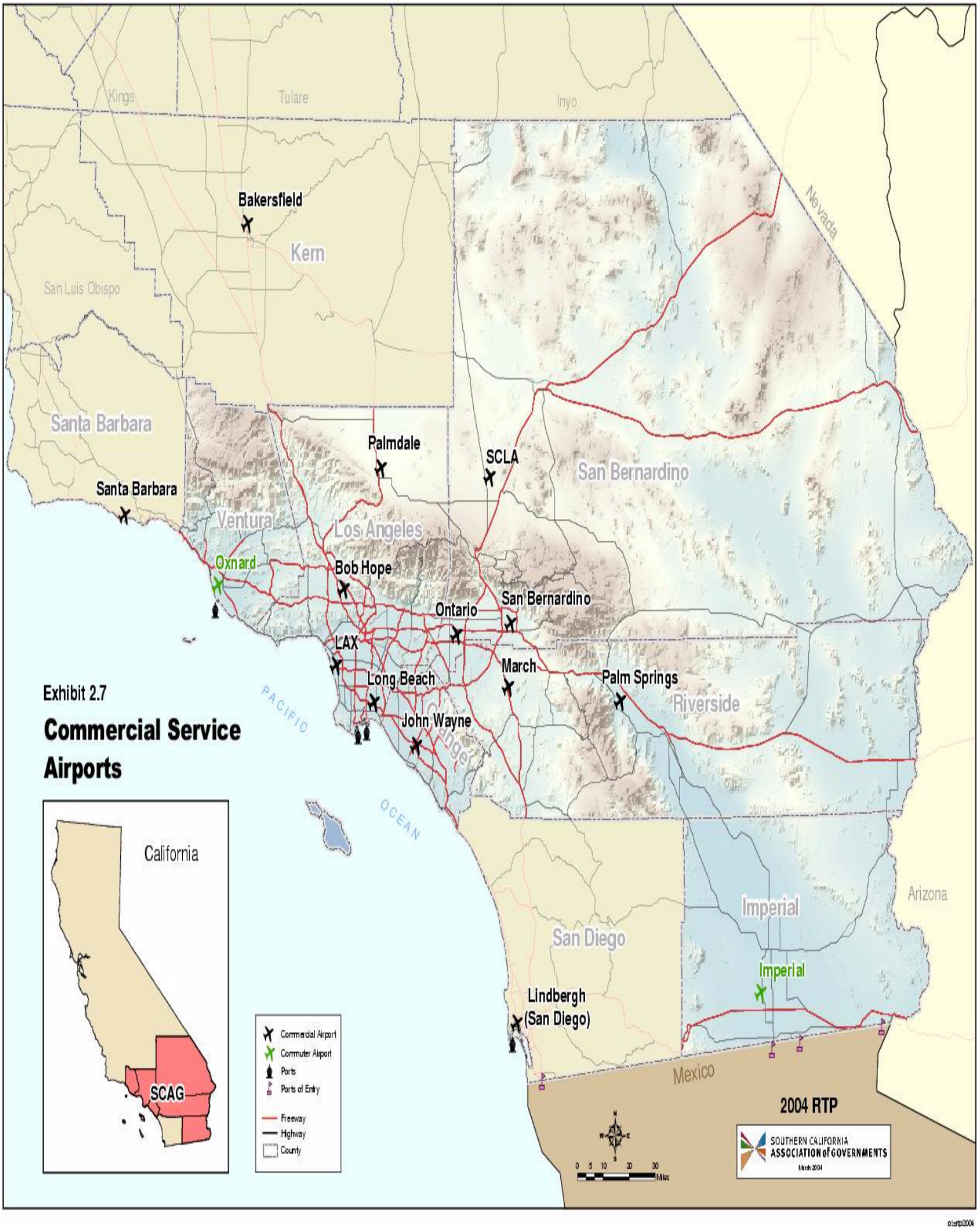


Exhibit 2.7
Commercial Service Airports
Kings
Tulare
Inyo
Nevada
Bakersfield
Kern
San Luis Obispo
Santa Barbara
Palmdale
SCLA
San Bernardino
Santa Barbara
Ventura
Los Angeles
Oxnard
Bob Hope
Ontario
San Bernardino
LAX
March
Palm Springs
Long Beach
Riverside
John Wayne
Orange
PACIFIC
OCEAN
Arizona
Imperial
San Diego
Imperial
Lindbergh (San Diego)
Mexico
California
SCAG
Commercial Airport
Commuter Airport
Ports
Ports of Entry
Freeway
Highway
County
0 5 10 20 30
Miles
2004 RTP
SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS
March 2004
o:\rtp2004

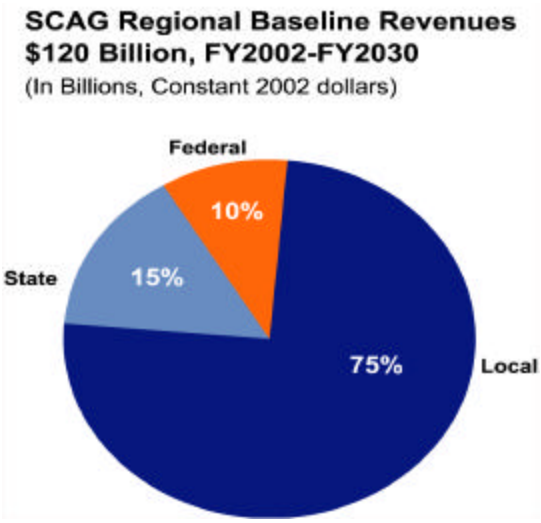
Table 2.6

Baseline Revenue Sources
(Constant 2002 dollars)

Revenue Sources	*Revenue Forecast FY2002–FY2030* (in Billions)
Local Sources	
Transportation Development Act (TDA)	$17.38
Local Sales Tax	42.31
Farebox	14.16
Gas Tax Subventions	3.07
Local Agency Funds	8.74
Miscellaneous Funds	3.00
Miscellaneous Carryover	1.97
Subtotal	$90.63
State Sources	
STIP, Regional	$5.04
STIP, Interregional	1.49
(TCRP)/Proposition 42	5.86
State Transit Assistance (STA)	0.76
TP&D (TCI)/Prop 116	0.11
SHOPP/O&M	4.21
Miscellaneous Carryover	0.09
Subtotal	$17.56
Federal Sources	
RSTP	$2.15
CMAQ	2.11
Other/Demonstration	2.16
Sec. 5309	1.47
Sec. 5307	3.86
Miscellaneous Carryover	0.42
Subtotal	$12.16
Total	$120.35

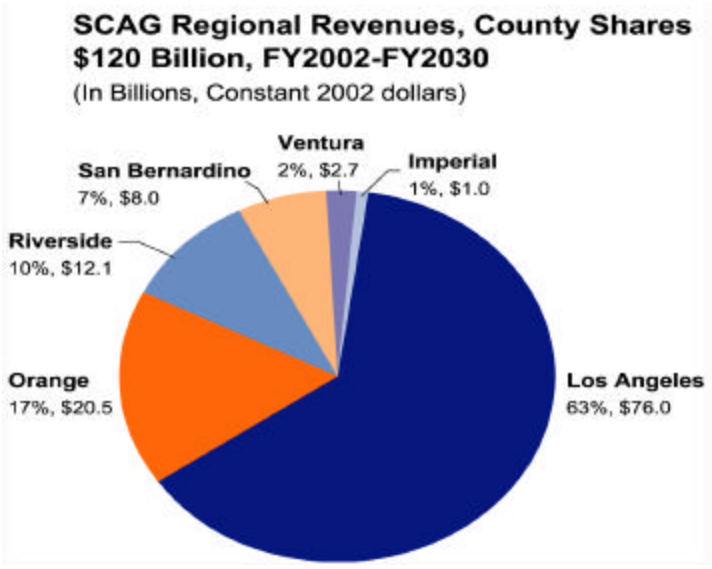
Note: For explanations of terms, please see Glossary
Numbers may not add up due to rounding

Figure 2.7



Local sources comprise 75 percent of the overall baseline revenue forecast, with State sources totaling 15 percent and federal sources making up 10 percent (Figure 2.7). While the forecast falls well short of funding all needed transportation projects in the Region, it provides a benchmark from which additional funding needs can be identified for the improvements recommended in the RTP. On a county-by-county basis, Los Angeles County's share of the overall revenues is about 63 percent, or $76.0 billion, followed by Orange County at 17 percent, or $20.5 billion (Figure 2.8). Riverside County's share is 10 percent, or $12.1 billion. San Bernardino County's share is 7 percent at $8.0 billion, Ventura County is 2 percent, or $2.7 billion, and Imperial County is 1 percent of the regional revenues at $1.0 billion.

Figure 2.8



Committed Expenses

The major categories of committed expenses include short-term capital projects currently programmed in the 2002 RTIP; operation and maintenance estimates for highways, the arterial system, and transit; as well as current debt service payments and debt issues anticipated by the local CTCs during the 2004 RTP time frame.

Table 2.7

Committed Regional Expenses by County
(FY 2002–FY 2030)
(in constant 2002 dollars, billions)

	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Total
TIP (Baseline & Tier 2)	$0.40	$13.65	$3.68	$1.57	$3.62	$0.64	$23.56
Highway O&M	$0.21	$3.39	$0.78	$0.58	$1.85	$0.31	$7.12
Arterial O&M	$0.08	$4.87	$2.30	$1.32	$2.07	$0.57	$11.22
Transit O&M	$0.10	$37.31	$4.69	$2.08	$2.77	$0.77	$47.72
Transit Rehab/Replacement	$0.00	$8.24	$1.00	$0.24	$0.30	$0.19	$9.96
Debt Service	$0.00	$11.93	$3.35	$0.24	$0.32	$0.00	$15.84
Total	**$0.80**	**$79.39**	**$15.80**	**$6.03**	**$10.92**	**$2.48**	**$115.42**

Note: Numbers may not add up due to rounding.

Tables 2.7 and 2.8 summarize the Region's committed expenses during the time frame covered by the 2004 RTP. All committed expenses and revenue forecasts from 2002 through 2030 are adjusted to constant 2002 dollars using a percent factor.

Table 2.8

Committed Regional Expenses
(FY 2002–FY 2030)
(in constant 2002 dollars, billions)

Committed Cost Category	Costs	Percentage
TIP (Baseline & Tier 2)	$23.56	20%
O&M / Rehab & Replace	$76.02	66%
Debt Service	$15.84	14%
Total	**$115.42**	**100%**

Note: Numbers may not add up due to rounding.

As the SCAG Region's transportation system ages, the ongoing costs to maintain the existing infrastructure require an increasing share of future transportation resources. As noted in Table 2.8, about 66 percent, or $76 billion, of total expenditures are committed to operating, maintaining and rehabilitating the Region's highway, transit, and arterial network. This estimate, however, is based upon historical and current levels of expenditures rather than

needs. Operations and maintenance (O&M) costs are estimated to be substantially greater when considering the full needs of the Region's transportation system. This issue is addressed in Chapter 4.

Funding Shortfall

Table 2.9 illustrates the scope of the potential financial situation utilizing the "low" revenue scenario. SCAG's policy committees and task forces approved the "low" baseline revenue scenario to be utilized for analytical and planning purposes, recognizing the need to acknowledge more conservative revenue estimates than what may be currently reflected in the financial plans of the county transportation commissions. In light of recent declines in transportation funding and the uncertainty of future funding, SCAG's use of the "low" revenue scenario for long-range planning is fiscally responsible and indicative of regional concerns. Some of these concerns are discussed further as ongoing fiscal challenges, highlighting some major assumptions incorporated into the "low" baseline revenue scenario. Further, it should be noted that the "net balance" available in some counties does not represent a "surplus." Rather, this "net balance" is what is available to cover recommended RTP projects.

Table 2.9

2004 RTP (Baseline & Tier 2) Regional Balance
by County
(in constant 2002 dollars, billions)

County	*Baseline Revenues*	*Committed Expenses*	*Net Balance Available for Additional RTP Projects* [2]
Imperial	$1.05	$0.80	$0.26
Los Angeles [3]	$76.01	$79.39	$(3.38)
Orange	$20.50	$15.80	$4.69
Riverside	$12.09	$6.03	$6.06
San Bernardino	$8.00	$10.92	$(2.92)
Ventura	$2.70	$2.48	$0.22
Regional Total	**$120.35**	**$115.42**	**$4.93**

Note:
1 Includes Riverside County local sales tax extension revenues, Transportation Uniform Mitigation Fee (TUMF) revenues, Proposition 42 revenues, and gas tax subvention revenues.
2 The "net balance" available in some counties does not represent a "surplus". Rather, the "net balance" is what is available to cover recommended RTP projects.
3 The 2004 RTP incorporates the "low" revenue scenario, which includes more conservative assumptions about the availability of revenues than what is reflected in MTA's financial plan

The SCAG Region will require additional revenues to properly operate and maintain the existing transportation system and to fund proposed long-term RTP investments. SCAG anticipates that additional funds would be derived from maintaining the Region's traditional transportation revenue sources, which might otherwise be lost or diminished in the years to come (e.g., gas tax revenues and local sales tax revenues). Additionally, SCAG anticipates that innovative financing strategies, such as public-private partnerships, will be needed to

implement the improvements recommended in the 2004 RTP. Further discussion of SCAG's public and private funding strategies can be found in Chapter 4.

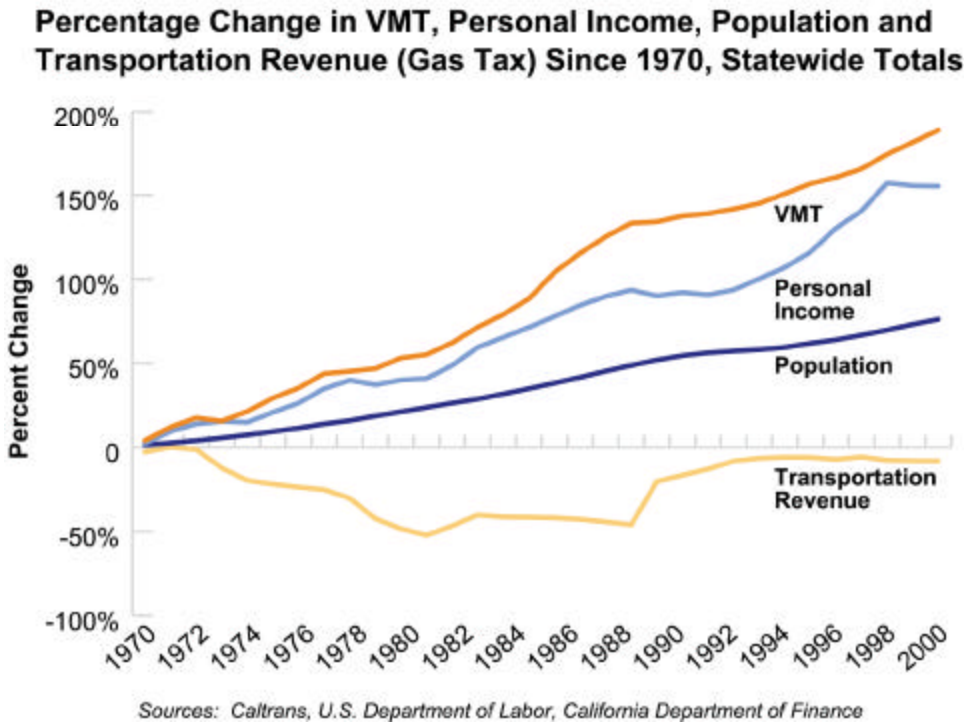
Ongoing Fiscal Challenges Reflected in the Baseline Revenue Forecast

The development of the 2004 RTP continues to involve the identification and analyses of potential fiscal challenges impacting the flow of transportation revenues to the SCAG Region, particularly given current economic uncertainties. The following briefly describes both existing issues as well as near- and long-term activities assumed to impact transportation revenues substantially for the "low" revenue scenario.

Decline of Gas Tax Revenues Due to Inflation

For the past 30 years, transportation revenue in California has generally not kept pace with the State's evolving demographic characteristics. Indicators such as vehicle miles traveled, population, and personal income growth have all outpaced the rate of transportation revenue growth. Figure 2.9, below, shows how gas tax revenues have fluctuated in real-dollar terms (adjusted for inflation) in relation to the steady growth in the demographic indicators. The passage of local "self-help" transportation sales taxes in the late 1980s and early 1990s have greatly improved funding for transportation. Nevertheless, gas tax revenues continue to decline in value due to inflation.

Figure 2.9



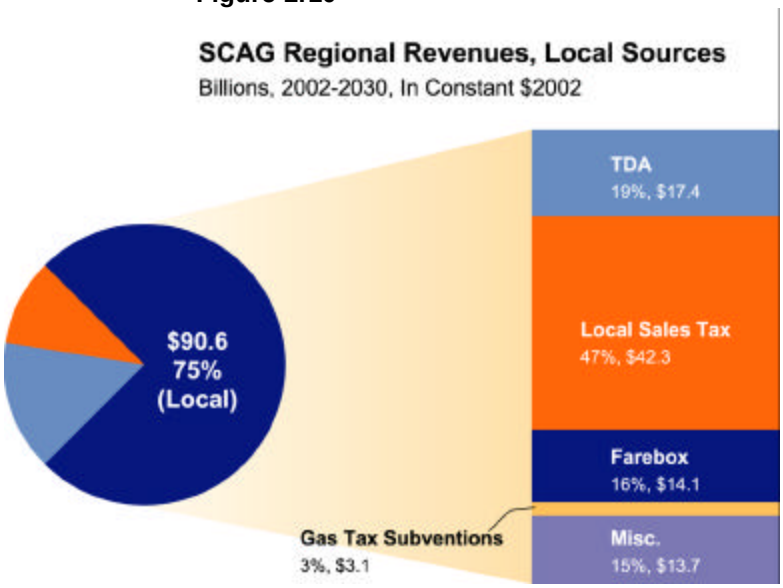
Sources: Caltrans, U.S. Department of Labor, California Department of Finance

Sunset of Existing Local Transportation Sales Taxes

Local sales taxes have provided nearly half of the local share of transportation funding in the Region. While Los Angeles County has two permanent sales taxes for transportation and Riverside County more recently managed to gain voter approval for a 30-year extension, the measures in Imperial, Orange, and San Bernardino Counties expire in the next seven to nine years. If the voters do not renew these sales taxes, the expiration of these taxes will have a profoundly negative impact on the ability of these counties to fund ongoing maintenance and operations, let alone transportation improvements.

Despite the success of Riverside County, similar measures in other California counties have failed to receive the two-thirds voter approval required for extension. Subject to Proposition 218 and in accordance with a California State Supreme Court decision, a two-thirds approval by county voters is required to reauthorize, increase, and/or impose new local sales taxes for transportation. These (half-cent) sales taxes are in addition to the sales and use tax levied statewide, and are generally imposed upon the same transactions and items subject to the statewide sales and use tax.

Figure 2.10



Loss of Revenues from Reduced Gasoline Consumption to Meet Air Quality Mandates

During the period of the 2004 RTP, technological advancements, along with State and federal air quality mandates placed on the SCAG Region, may result in a motor vehicle fleet that consumes considerably less gasoline or relies on alternative energy sources. This would erode the revenues generated by gasoline sales and diminish the gas tax as a reliable source of revenue for transportation. Other factors, such as scarcity or dependency on foreign sources, may also affect the availability of petroleum-based fuel. In recognition of difficulties in developing cost-competitive alternative fuel vehicles, a sizeable alternative fuel vehicle market will not likely appear in the immediate future. Nevertheless, the long-term implications require further research and analysis.

An Aging Society That Could Consume Fewer Taxable Items

Modest changes in the rate of economic growth can have substantial implications for transportation revenues under the existing tax structure. Additionally, growth projections are critical in identifying funding possibilities and making infrastructure investment decisions. SCAG continues to research and monitor the regional planning implications of long-term economic and demographic trends.

SCAG's recent research effort has highlighted the potential impacts from the aging "baby boom" generation. Explosive growth in the elderly population is projected to occur between 2010 and 2030. This could have significant impacts on labor force growth and the overall economy. Historical and current trends indicate that as consumers age, both their level of spending and the way they allocate their spending changes. Seniors generally spend less, especially on taxable items. Because of loss of sales tax revenues from the aging population, there is a potential for further declines in transportation revenues. Significant shifts in demographics will also influence future demand for transportation infrastructure and appropriate levels of investment.

Escalation of Operations and Maintenance Needs

The demand for travel is expected to grow at least as fast as the population. Operations and maintenance expenditures must keep pace with these needs. At the same time, costs associated with operating and maintaining the existing transportation system continue to rise due to an aging system. If ongoing operations and maintenance needs are not met in a timely manner, the costs of these activities will continue to increase as the system deteriorates further. Balancing revenues and costs is further complicated by the need to repair highway and transit systems concurrent with the need for additional and significant new capital investments.

As noted above, the consequences of deferred maintenance have led to significantly higher life-cycle costs. Inevitably, continued deferral of required maintenance and rehabilitation leads to an eroding infrastructure. Should the Region's transportation system be allowed to deteriorate further, an intolerable decline in mobility and safety would result—meaning more congestion, delays, and accidents.

State Budget Crisis and the State Highway Account Shortfall

California's budget crisis may continue to have significant impacts on transportation funding for the SCAG Region. Many transportation projects will be affected, including Transportation Congestion Relief Program (TCRP) project commitments, the STIP, State Transit Assistance (STA) for transit operators, and associated formula funding allocations for local streets and roads. Additionally, the State Highway Account (SHA) cash balance is projected to fall below planned levels primarily from lower-than-expected truck weight fee revenues and gas tax receipts.

Released in November of 2003, the 2004 STIP Fund Estimate, covering the five-year period from FY2005 through FY2009, indicates that there will be no new programming capacity through FY2009 above those projects already programmed in the 2002 STIP. A number of

factors, including the delay in the reauthorization of the federal transportation bill and the projected impact of ethanol on federal revenues to the State, contribute to the uncertain funding situation.

At around the same time in November, the governor proposed mid-year reductions to transportation programs statewide, exacerbating the funding situation. More recently, the governor released his FY2005 Budget proposal. In addition to the mid-year reductions, the proposal includes further adjustments, namely by retaining Proposition 42 funds in the General Fund. The mid-year and budget year proposals would reduce transportation funding by about $2 billion statewide through FY2005 in order to aid the General Fund.

SCAG has been working with the Region's partner transportation agencies to analyze the full potential impact of the State budget shortfall on transportation funding. SCAG continues to work diligently to monitor and assess the current budget situation and intends to incorporate any adjustments to the 2004 RTP as may be necessary when the budget is finalized.

Transportation Equity Act for the 21st Century (TEA-21) Reauthorization

Established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA) and renewed in 1998 through the Transportation Equity Act for the 21st Century (TEA-21), the reauthorization of TEA-21 will be the third iteration of recent federal surface transportation authorizing legislation. TEA-3 will have a significant, yet unknown, impact on the availability of transportation funding in the SCAG Region.

On May 14, 2003, President Bush released his reauthorization proposal known as the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003, or SAFETEA at a funding level of $247 billion over six years – later modified to $256 billion over six years by the President's FY2005 budget. Although the House Transportation and Infrastructure Committee initially called for a $375 billion measure based on the U.S. Department of Transportation's Conditions and Performance Report, more recently, House leaders have been considering lower funding levels to find a compromise between the Senate-passed level and the president's proposal. On February 12, 2004, the Senate voted (76-21) to approve S1072, which would fund $318 billion for highways, transit and safety programs over six years.

The earlier, five-month extension of TEA-21, which Congress enacted last year, expired February 29, 2004. The second extension is set to expire April 30, 2004. As the reauthorization debates continue and TEA-3 becomes finalized, appropriate modifications would need to be made to the 2004 RTP financial plan.

Meeting Our Air Quality Commitments

The SCAG Region has experienced cleaner and healthier air quality over the past two decades, from collaborative efforts over the years to reduce emissions from stationary and mobile sources. However, even with these efforts, much of the Region continues to exceed the National Ambient Air Quality Standards (NAAQS) and large portions of Southern California still have the worst air quality in the nation.

Most of the SCAG Region is classified as non-attainment for some criteria pollutants. The South Coast Air Basin (SCAB), being the worst, is classified as an "extreme" non-attainment area for ozone, and is required to meet the federal 1-hour ozone standard by 2010. The SCAB is also classified as a "serious" non-attainment area for particulates (PM_{10}), and is required to meet the PM_{10} standards by 2006. In addition, the new federal standards for 8-hour ozone and fine particulate matter ($PM_{2.5}$), currently in the process of being implemented, will require significant emission reductions beyond those required to attain the existing standards.

Previous air quality plans underestimated the air emissions inventory and targets. The magnitude of the required emissions reductions reported in the 2003 South Coast Air Quality Management Plan (SCAQMP) is far greater than that reported in previous air quality plans. This mainly results from improvements in air quality modeling and a better understanding of motor vehicle emissions. The emissions target, also known as the "carrying capacity," has tightened and the mobile source emissions inventory has increased. This all equates to a need for greater emissions reductions. However, it is important to note that the increase in required emissions reductions does not mean that measured air pollution in the Region has increased.

There are only a few years remaining to identify and achieve the emissions reductions required for attainment. Failure to implement an adequate State Implementation Plan (SIP) could result in federal sanctions, such as a ban on approval of new highway projects and a loss of highway funding, as well as more stringent emissions offsets for stationary sources.

At this time, the responsible agencies have not been able to identify the needed emissions reductions to meet attainment of the federal standards. This emissions reduction shortfall presents quite a challenge to the Region, as most of the substantial and feasible emissions reductions have already been implemented. To put it bluntly, the Region is starving for emissions reduction strategies, and there is an urgent need for new and innovative solutions.

Under Section 182(e)(5) of the federal Clean Air Act, extreme ozone non-attainment areas are allowed to allocate emissions reductions to long-term, unidentified measures such as anticipated future technologies, commonly referred to as "black box" measures. However, reliance on the "black box" measures will cease in the near future, as measures need to be identified by 2007 and emissions reductions achieved by 2010.

Many challenges lie ahead as the Region continues to grow. This is most evident from the severity of the 2003 ozone season. On July 11, 2003, the SCAB experienced its first Stage 1 ozone alert since 1998. This type of alert warns even healthy residents to curtail outdoor activities. The severity of the 2003 ozone season has been attributed to meteorological conditions, regional socioeconomic growth and the recent upsurge in the operation of sport utility vehicles (SUVs).

Given the challenges that lie ahead, increased public awareness and a reinvigorated collaborative effort from all agencies and stakeholders is critical to bring this Region into attainment with the federal air quality standards. SCAG's contribution to this collaborative effort is essential, as emissions reductions from goods movement, marine ports, aviation and land-use will become increasingly important in the next few years.